

FACT SHEET



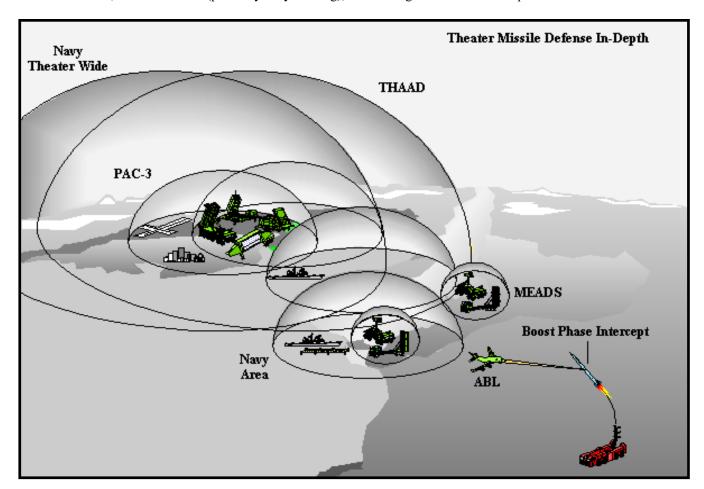
BMDO FACT SHEET 214-00-11

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THE FAMILY OF SYSTEMS CONCEPT

Introduction

Joint Theater Air and Missile Defense (JTAMD) is the capability to detect, classify, intercept, and destroy (or negate the effectiveness of) enemy aircraft and missiles prior to launch or while in flight, in order to protect U.S. and coalition forces, selected assets, and population centers within an assigned theater of operations. The Ballistic Missile Defense Organization (BMDO) and the Joint Theater Air and Missile Defense Organization (JTAMDO), in coordination with the CINCs, Services, and other DoD agencies, are working to address this mission area. Due to the complexity and diversity of the missile and aircraft threats, a single system is not capable of performing TAMD. To adequately perform TAMD, an integrated Family of Systems (FoS) is required. The FoS concept provides a cohesive, coherent, and effective element of force protection. The FoS supports Attack Operations (both pre- and post-launch attack of enemy TELs and their supporting infrastructure), Active Defense of post-launch Theater Missiles, Passive Defense (primarily early warning), and an integrated BMC4I concept.



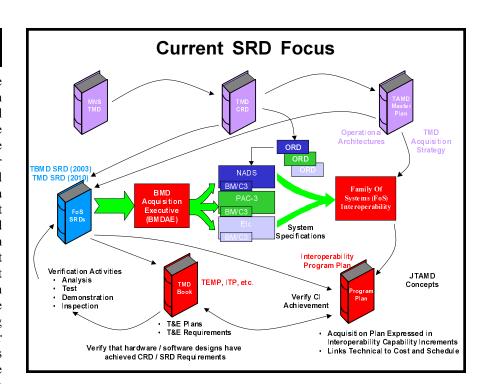
Managing the Family of Systems

The FoS concept is an evolving, flexible configuration of interoperable weapon systems, C2 centers, and internal/external sensors. Development of these systems is dispersed throughout the Services and Agencies. However, our goal is to treat the FoS as a disciplined acquisition program that follows a traditional document development process such as a Mission Need Statement (MNS) followed by an Operational Requirements Document (ORD), System Requirements Document (SRD), and Test & Evaluation Master Plan (TEMP). For the FoS, requirements from overarching documents such as the Theater Missile Defense Capstone Requirements Document (TMD CRD) and the TAMD Interoperability SRD must be flowed down to the individual system's SRDs. This flow down of requirements is shown at right.

By treating the implementation of the FoS as an acquisition program, we are able to: 1) implement a structured System Engineering process; 2) leverage existing programs; 3) establish a program plan with discrete, incremental, and measurable capabilities; 4) define exit criteria; and 5) monitor/evaluate the progress against the program plan.

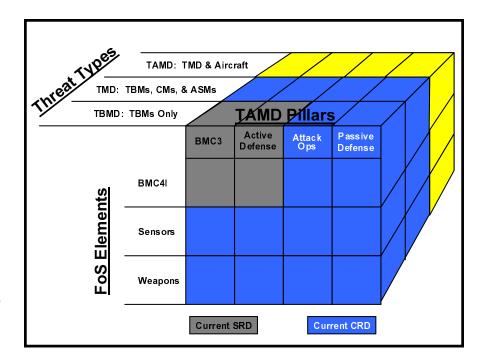
FoS System Requirements Document

The FoS SRD apportions the operational requirements of the TMD CRD into functional and performance requirements. The functional and performance requirements are allocated to the individual systems that comprise the FoS. Since the FoS SRD affects both legacy developing systems, requirements allocation process attempts to accommodate "as built" capabilities to reduce the amount of system upgrades. Where existing/planned capabilities do not meet the allocated requirements, upgrades are identified and documented in the Interoperability Program Plan.



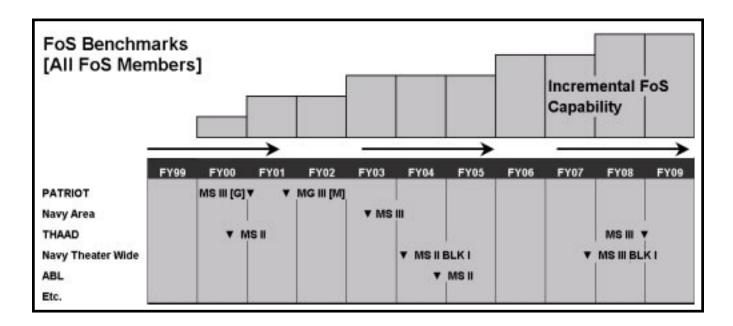
FoS Interoperability Program Plan

The FoS IPP is the basic management document for FoS. The FoS IPP: identifies program milestones and objectives; defines operational capabilities and time phased "capability increments"; presents a verification approach; tracks the progress towards meeting the capability increments; and identifies funding requirements. An incremental deployment approach for the FoS has been developed that supports the Departments Joint Vision 2010.



FoS Test & Evaluation Master Plan

The Capstone Test and Evaluation Master Plan (TEMP) for the TMD FoS summarizes the issues, activities, responsibilities and resources for the TMD FoS Test & Evaluation. This FoS TEMP is a top-level integrating document. It describes the approach to assess and confirm that the systems that make up the FoS can, when acting in concert, provide required TMD capability across the spectrum of threats, environments, deployments, and contingency options. The FoS T&E program builds on and augments the individual TMD system development programs by providing FoS-level test policy and planning, interoperability test tools, common T&E resources, and sponsorship of multi-Service, multi-system test events.



FoS Status

Initial documentation is being developed including the FoS SRD/IPP/TEMP. The initial effort addresses the Active Defense portion of the TBMD architecture only. Future efforts will expand the FoS family of documents to include Attack Operations, Active Defense, and Passive Defense for all the TAMD threat types.

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